

Chapter 24 Studying the Sun**Section 24.3 The Sun**


This section describes the structure of the sun, features on the sun's surface, and nuclear fusion in the interior of the sun.

Reading Strategy

Preview the Key Concepts, topic headings, vocabulary, and figures in this section. In the table, list two things you expect to learn. After reading, complete the table, stating what you have learned about each item you listed. For more information on this Reading Strategy, see the **Reading and Study Skills** in the **Skills and Reference Handbook** at the end of your textbook.

What I Expect to Learn	What I Learned
a.	b.
c.	d.

Structure of the Sun

1.  List the four main parts of the sun. _____

2. What is the solar wind? _____

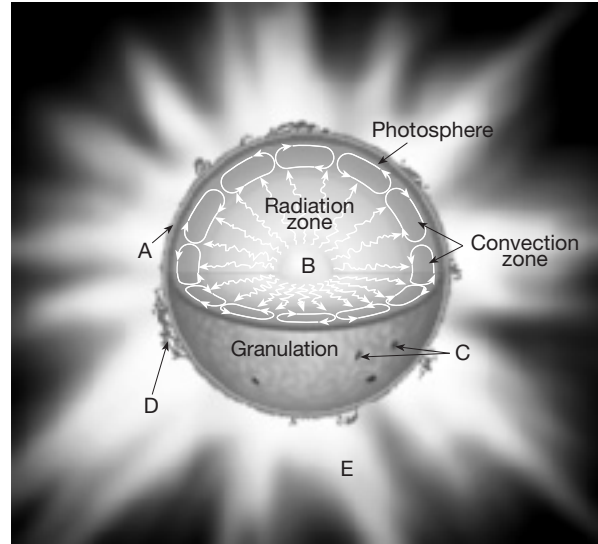
Match each description with its sun layer.

Description	Sun Layer
_____ 3. outermost part of the sun's atmosphere	a. chromosphere
_____ 4. relatively thin layer of the sun's atmosphere	b. photosphere
_____ 5. layer that radiates most of the sunlight we can see	c. corona

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6. Select the appropriate letter in the figure that identifies each of the following features.

_____ prominence
 _____ chromosphere
 _____ sunspots
 _____ corona
 _____ core



The Active Sun

Match each description with its sun feature.

- | Description | Sun Feature |
|--|----------------|
| _____ 7. dark region on the surface of the photosphere | a. solar flare |
| _____ 8. brief outburst associated with sunspot clusters | b. sunspot |
| _____ 9. huge cloudlike structure of chromospheric gases | c. prominence |
10. Is the following sentence true or false? Different parts of the sun rotate at different speeds. _____
11. ☞ Why do sunspots appear dark? _____
12. ☞ Prominences are ionized gases trapped by _____ extending from regions of intense solar activity.
13. ☞ List the main forms of radiation in which solar flares release energy. _____
14. Solar flares can cause spectacular _____, or northern and southern lights, in Earth's atmosphere.

The Solar Interior

15. Is the following sentence true or false? The sun produces energy by nuclear fission. _____
16. ☞ During nuclear fusion, _____ is converted into energy.
17. In what form is most of the energy from hydrogen fusion released? _____
18. The sun became hot enough to start nuclear fusion because the temperature of gases rises when they are _____.

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WordWise

Complete the sentences by using the scrambled vocabulary terms below.

ntooshp

nostsup

eptyrosscop

rhhtoppees

mlceentrocageti tpmecsru

plodrep fetfec

noraoc

odiar clpesoeet

osnniuotuc mtecrpus

roals rslefa

etagncirfr eceletpso

Sunspots are associated with brief outbursts called _____.

_____ are dark regions on the surface of the photosphere.

The study of the properties of light that depend on wavelength is _____.

A(n) _____ uses wire mesh as a reflector to collect radiation from space.

The siren from an ambulance that is approaching you seems louder because of the _____.

Galileo used a(n) _____ that had a lens to bend light.

The _____ is the outermost part of the sun's atmosphere.

Most of the sunlight we can see comes from the _____ of the sun.

The _____ is the arrangement of electromagnetic waves according to their wavelengths and frequencies.

_____ are particles of light.

An uninterrupted band of color produced by a prism is a(n) _____.